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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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AUSTIN, TX 78701

EXAMINER
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BUTLER, PATRICK NEAL

ART UNIT	PAPER NUMBER
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1791

MAIL DATE	DELIVERY MODE
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03/08/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/757,828	<b>Applicant(s)</b> PARISH, BART P.	
	<b>Examiner</b> Patrick Butler	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,3,7-21,30-32 and 34-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3,7-21,30-32 and 34-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Double Patenting***

Applicant is advised that should claims 2, 3, 7-21, 30-32 be found allowable, claims 34-53 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 7, 8, 12, 13, 17, 18, 34-37, 41, 42, 46, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantrell (US Patent No. 6,017,475) in view of Lovercheck et al. (US Patent No. 3,547,577).

With respect to Claims 2 and 34, Cantrell teaches a method of making a product using a combined combustible material of household garbage including plastic bottles and paper (method of making combustible products from recyclable materials; feedstock is ... thermoplastic material, cellulosic fiber) (see col. 1, lines 14-15; col. 5, lines 1-7; col. 11, line 64 through col. 12, line 4). As the household garbage contains materials that have been brought together in the production of the garbage, it is

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therefore already, to some degree, a blended material (blending feedstock). Cantrell teaches reducing particle size by using a grinder (inputting said blended feedstock into a grinder for the purpose of reducing the size of said blended feedstock) (see col. 9, lines 9-15; col. 11, line 64 through col. 12, line 4), squeezing the shards, applying high pressure, and extruding the material into bricks, blocks, or fire logs (compressing and extruding said reduced blended feedstock through a cuber so as to create combustible products) (see col. 9, lines 54-57; col. 10, lines 17-25 and 35-46; col. 11, lines 20-27). In extruding, the location on the apparatus that the material is extruded from would be the die hole used to form combustible products. Moreover, as the expeller and extruder would constitute at least two dies, there would be at least two die holes. It is noted on page 9, lines 5-9, within paragraph [0023], of Applicant's specification that Applicant defines cuber to encompass an apparatus that makes items of a variety of shapes:

The term "cube" refers to a discrete product of any size or shape that contains both cellulosic material and thermoplastic material. The cube need not be square or even symmetrical. While it may be useful to form the products in the shape of cubes, they can be any suitable symmetrical configuration such as the shape of a tube or a sphere.

This limitation is taught by Cantrell's bricks, blocks, and fire logs. With respect to the limitation "consists essentially," the limitation is interpreted as "consisting essentially." The overall claim language remains open with the limitation "comprising." Therefore, additional materials may be added, which may be considered additional process steps which would not be effected by the limitation "consists essentially," and the limitation is

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met are at least by the plastic bottle article (see col. 1, lines 14-15; col. 5, lines 1-7; col. 11, line 64 through col. 12, line 4).

Cantrell does not expressly teach monitoring the temperature of the combustible products for purposes of fire prevention.

Lovercheck teaches forming briquettes 36 and maintaining them at 130 °F to sterilize the material (see col. 2, lines 48-57), which is interpreted as meaning the temperature of the combustible products is monitored to some degree since the temperature is maintained (teach monitoring the temperature of the combustible products for purposes of fire prevention).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the cubes of Cantrell as taught by Lovercheck in order to provide a sterilized product of garbage (see Lovercheck, col. 1, lines 33-47).

With respect to Claims 2, 7, 12, 17, 34, 36, 41, and 46, Cantrell does not appear to explicitly teach that the grinder operating torque is within the claimed range (e.g., between about 18,000 and 20,000 ft-lbs of torque per motor shaft). However, in this regard, Cantrell further teaches that the grinder operates at a rated velocity depending upon the configuration of the machine used and that it rotates so that the work piece is ground to the desired shape, size, and finish (see col. 9, lines 27-35). Cantrell's teaching optimizing the rated velocity and position, by definition, would be an optimization of the rotational force or torque via optimization of its components. Given that the velocity and material is ground properly, the torque would be a function of these variables. As such, Cantrell obvious recognizes that the grinder operating torque is a

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result-effective variable. Since the grinder operating torque would be a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder operating torque applied in the process of Cantrell through routine experimentation based upon rated velocity and grinding to the desired shape, size, and finish (see col. 9, lines 27-35).

With respect to Claims 3, 8, 13, 18, 35, 37, 42, and 47, Cantrell does not appear to explicitly teach that the grinder operating speed is within the claimed range (e.g., between about 75 to about 80 rpm). However, in this regard, Cantrell further teaches that the grinder operates at a rated velocity depending upon the configuration of the machine used and that it rotates so that the work piece is ground to the desired shape, size, and finish (see 9, lines 27-35). As such, Cantrell obvious recognizes that the grinder operating speed is a result-effective variable. Since the grinder operating speed would be a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder operating speed applied in the process of Cantrell through routine experimentation based upon rated velocity and grinding to the desired shape, size, and finish (see col. 9, lines 27-35).

Claims 9-11, 14-16, 19-21, 38-40, 43-45, and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantrell (US Patent No. 6,017,475) in view of Lovercheck et al. (US Patent No. 3,547,577) as applied to claims 2, 7, 12, 17, 34, 36, 41, and 46 above, and further in view of Jesse (US Patent No. 5,342,418).

With respect to Claims 9, 14, 19, 38, 43, and 48, Cantrell teaches making combustible products from recyclable materials as previously described. Cantrell

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teaches using combustible rubbish (see col. 1, lines 13-16 and 25-31) including plastic bottles (see col. 5, lines 1-7).

Cantrell does not appear to expressly teach polyethylene, polypropylene, and polybutylene as components of the combustible rubbish.

Jesse teaches that polyethylene, polypropylene, and polybutylene (thermoplastic material is selected from the group consisting of polyethylene, polypropylene ... polybutylene) are elements of combustion obtained from disposable diapers (recyclable materials) (see col. 7, 22-40 and 49-61).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the polymers in disposable diapers as taught by Jesse in the process of making combustible products as taught by Cantrell because Cantrell requires combustible rubbish and Jesse teaches combustible disposable material. Moreover, Jesse teaches that the material is well known to be recycled to make combustible products (see col. 7, 22-40 and 49-61).

With respect to Claims 10, 11, 15, 16, 20, 21, 39, 40, 44, 45, 49, and 50 it is noted that there is no positively claimed step of producing disposable diapers, sanitary pads, adhesive liners, and hospital gowns. Thus, any materials in disposable diapers, sanitary pads, adhesive liners, and hospital gowns would be materially identical to byproducts and waste of production. Jesse teaches using disposable diapers and sanitary pads (hygiene pads) (see col. 7, lines 49-61).

Claims 30-32 and 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantrell (US Patent No. 6,017,475) in view of Lovercheck et al. (US

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Patent No. 3,547,577) as applied to Claim 2 and 34 above, and further in view of Wesley et al. (US Patent No. 4,789,507).

Cantrell in view of Lovercheck teaches a method of making combustible products as previously described with respect to claim 34.

With respect to Claims 30, 31, 51, and 52, Cantrell teaches optimization of grinder operating torque as described above.

Cantrell does not expressly teach monitoring the operational characteristics of said grinder and cuber using a software application. It is noted that there is no claimed step of controlling, regardless of any data “monitor[ed].” Therefore, any mentioning of any process monitoring involving 1) software and 2) a grinder or extruder (cuber) would meet the limitations of the claim since any parameter could be used to control the process regardless of whether or not specific controlling is taught.

Wesley teaches that when using an extruder, the speed of the extruder (cuber; speed of the cuber) is monitored as well as the pump outlet pressure (cuber; the pressure required to perform the cubing operation) (see col. 8, lines 41-56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wesley’s monitoring with Cantrell’s process of making combustible products in order to form a feedback control of the process as well as to control the rate of flow into the extruder (cuber) (see col. 8, lines 41-56).

With respect to Claims 33 and 53, Cantrell does not appear to explicitly teach that the grinder operating speed is within the claimed range (e.g., between about 75 to about 80 rpm). However, in this regard, Cantrell further teaches that the grinder



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operates at a rated velocity depending upon the configuration of the machine used and that it rotates so that the work piece is ground to the desired shape, size, and finish (see 9, lines 27-35). As such, Cantrell obvious recognizes that the grinder operating speed is a result-effective variable. Since the grinder operating speed would be a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder operating speed applied in the process of Cantrell through routine experimentation based upon rated velocity and grinding to the desired shape, size, and finish.

### ***Response to Arguments***

Applicant's arguments filed 16 November 2010 have been fully considered but they are not persuasive.

Applicant argues with respect to the 35 U.S.C. § 112, second paragraph, rejections. Applicant's arguments appear to be on the grounds that:

1) Applicant's amendment of Claims 2, 3, 7-12, and 30-32 removed the basis for the rejection.

Applicant argues with respect to the 35 U.S.C. § 112, first paragraph, rejections. Applicant's arguments appear to be on the grounds that:

1) Applicant's amendment of Claims 2, 3, 7-12, 30-32, and 34-53 removed the basis for the rejection.

Applicant argues with respect to the 35 U.S.C. § 103(a) rejections. Applicant's arguments appear to be on the grounds that:

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2) Cantrell does not teach feedstock consisting essentially because the feedstock is combined with rubbish.

3) Cantrell does not teach feedstock consisting essentially because the feedstock contains a substantial amount of water.

4) Torque is not a result-effective variable since Cantrell does not suggest or teach that torque is an important factor or even a factor, and torque would be not be a factor with water present.

5) No reason for optimizing torque within the claimed range is given.

6) The grinder speed is not a result effective variable.

7) No reason for optimizing grinding speed within the claimed range is given.

The Applicant's arguments are addressed as follows:

1) In view of Applicant's amendment of Claims 2, 3, 7-12, 30-32, and 34-53, the Examiner withdraws the previously set forth 35 U.S.C. § 112, second paragraph, rejection as detailed in the Claim Rejections - 35 USC § 112 section of the Office Action dated 15 May 2009.

2) Cantrell teaches a feedstock that "consists essentially" as described above:

With respect to the limitation "consists essentially," the limitation is interpreted as "consisting essentially." The overall claim language remains open with the limitation "comprising." Therefore, additional materials may be added, which may be considered additional process steps which would not be effected by the limitation "consists essentially," and the limitation is met are at least by

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the plastic bottle article (see col. 1, lines 14-15; col. 5, lines 1-7; col. 11, line 64 through col. 12, line 4).

3 and 4) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., feedstock containing no water) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

3) Cantrell is not relied upon for a teaching of not containing water. However, it is noted that no minimum amount is required since volume reduction is partially due to debulking as recited on page 10 of the Office Action dated 15 May 2009:

Cantrell's volumetric reduction of 30-75% is compared to the "original volume" (see col. 9, lines 57-65 and col. 12, lines 20-30). Thus, the Examiner interprets the reduction to be comparing the post-expeller material to the initial material processed instead of comparing the post-expeller material to material entering the expeller. Moreover, Cantrell's volumetric reduction of 30-75% does not specify that the de-bulking is solely due to water removed. The debulking would be due to rearranging the material to take up less space via converting to shard form (see col. 12, lines 5-11). Thus, no minimum of water is required in Cantrell's garbage.

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4) Applicant's argument with respect to minimal torque requirements once water is present has been considered. However, the arguments of counsel cannot take the place of evidence in the record.

4) As clarified above, optimization of the torque is taught via the optimization of its components:

However, in this regard, Cantrell further teaches that the grinder operates at a rated velocity depending upon the configuration of the machine used and that it rotates so that the work piece is ground to the desired shape, size, and finish (see col. 9, lines 27-35). Cantrell's teaching of optimizing the rated velocity and position, by definition, would be an optimization of the rotational force or torque via optimization of its components. Given that the velocity and material is ground properly, the torque would be a function of these variables. As such, Cantrell obvious recognizes that the grinder operating torque is a result-effective variable.

5) The purpose of optimizing the torque is recited above:

Since the grinder operating torque would be a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder operating torque applied in the process of Cantrell through routine experimentation based upon rated velocity and grinding to the desired shape, size, and finish (see col. 9, lines 27-35).

6) As recited above, optimization of the grinder operating speed is taught by Cantrell:

However, in this regard, Cantrell further teaches that the grinder operates at a rated velocity depending upon the configuration of the machine used and that it rotates so that the work piece is ground to the desired shape, size, and finish (see 9, lines 27-35). As such, Cantrell obvious recognizes that the grinder operating speed is a result-effective variable.

7) The purpose of optimizing the grinder operating speed is recited above:

Since the grinder operating speed would be a result-effective variable, one of ordinary skill in the art would have obviously determined the optimum grinder operating speed applied in the process of Cantrell through routine experimentation based upon rated velocity and grinding to the desired shape, size, and finish (see col. 9, lines 27-35).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Butler whose telephone number is (571) 272-8517. The examiner can normally be reached on Mon.-Thu. 7:30 a.m.-5 p.m. and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. B./  
Examiner, Art Unit 1791

/Christina Johnson/  
Supervisory Patent Examiner, Art Unit 1791